CLAIMS

1. Integrated biosensor and simulation system comprising:

   a sensor for sensing a biological target to generate a signal; and

   a simulator for using the signal and a model of the target to generate a therapeutic or diagnostic output.

2. The system of claim 1 wherein:

   the sensor is reconfigurable by the simulator.

3. The system of claim 1 wherein:

   the sensor senses a food material for consumption by the biological target to generate a second signal, the simulator further using the second signal to generate the therapeutic or diagnostic output.

4. The system of claim 1 wherein:

   the simulator generates the output according to a regulatory condition.

5. The system of claim 1 wherein:

   the sensor couples to the simulator via a programmable switch.

6. Automated sensor and simulation method comprising the steps of:

   sensing a biological target to generate a signal; and

simulating using the signal and a model of the target to generate a therapeutic or diagnostic output.

7.   The method of claim 6 wherein:

5   a simulator for simulating reconfigures a sensor for sensing.

8.   The method of claim 7 wherein:

the sensor senses a food material for consumption by the biological target to

generate a second signal, the simulator further using the second signal to generate the

10   therapeutic or diagnostic output.

9. The method of claim 7 wherein:

the simulator generates the output according to a regulatory condition.

15   10. The method of claim 7 wherein:

the sensor couples to the simulator via a programmable switch.